

FIG. 2. – XML Data Table With Sample Data.

| ID | SEQ | ANCESTORS | IMMEDIATE_P ARENT | DATA_NAME | DATA_TYPE | VALUE | EMPTY |
|----|-----|--------------------|----------------------|-----------|-----------|--|-------|
| 1 | 1 | customer | prolog | XML | PI | version= "1.0" | 0 |
| 1 | 2 | customer | prolog | MyPI | PI | some PI data | 0 |
| 1 | 3 | customer | customer | type | attr | preferre d | 0 |
| 1 | 4 | customer/name[1] | name | pcdata[1] | text | John Smith | 0 |
| 1 | 5 | customer/gender[1] | gender | pcdata[1] | text | male | 0 |
| 1 | 6 | customer/phone[1] | phone | type | attr | home | 0 |
| 1 | 7 | customer/phone[1] | phone | pcdata[1] | text | 516.555. 1234 | 0 |
| 1 | 8 | customer/phone[2] | phone | type | attr | office | 0 |
| 1 | 9 | customer/phone[2] | phone | pcdata[1] | text | 212.555. 1234 | 0 |
| 1 | 10 | customer/hobby[1] | hobby | name | attr | skiing | 1 |
| 1 | 11 | customer | epilog | | comment | this is the end of the document | 0 |

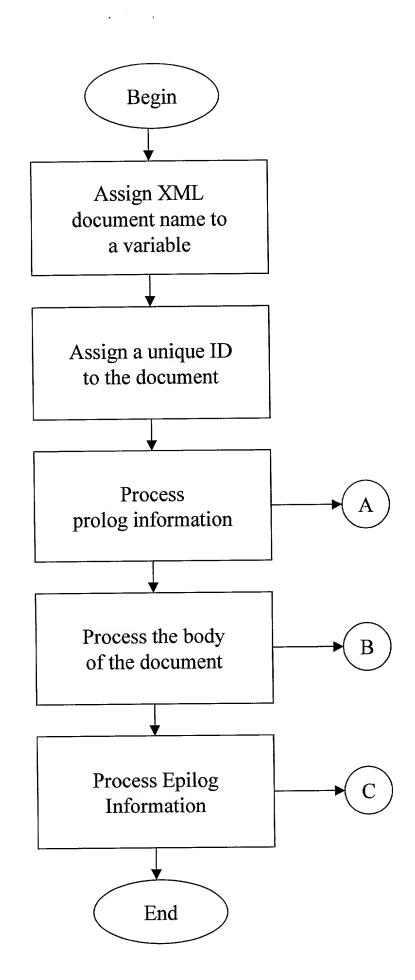
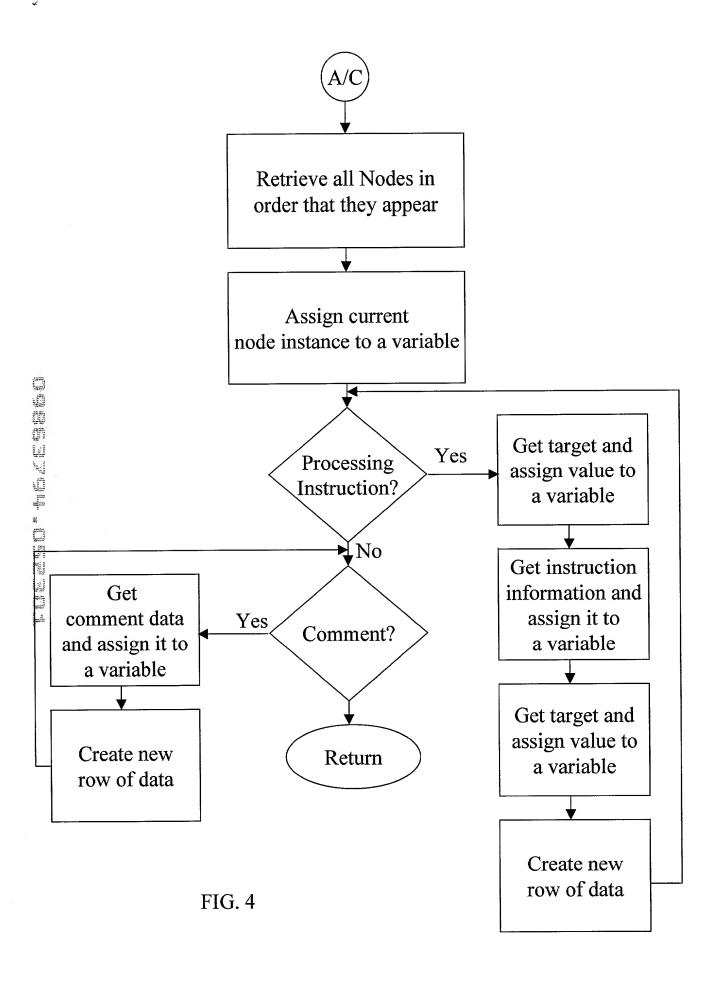


FIG. 3



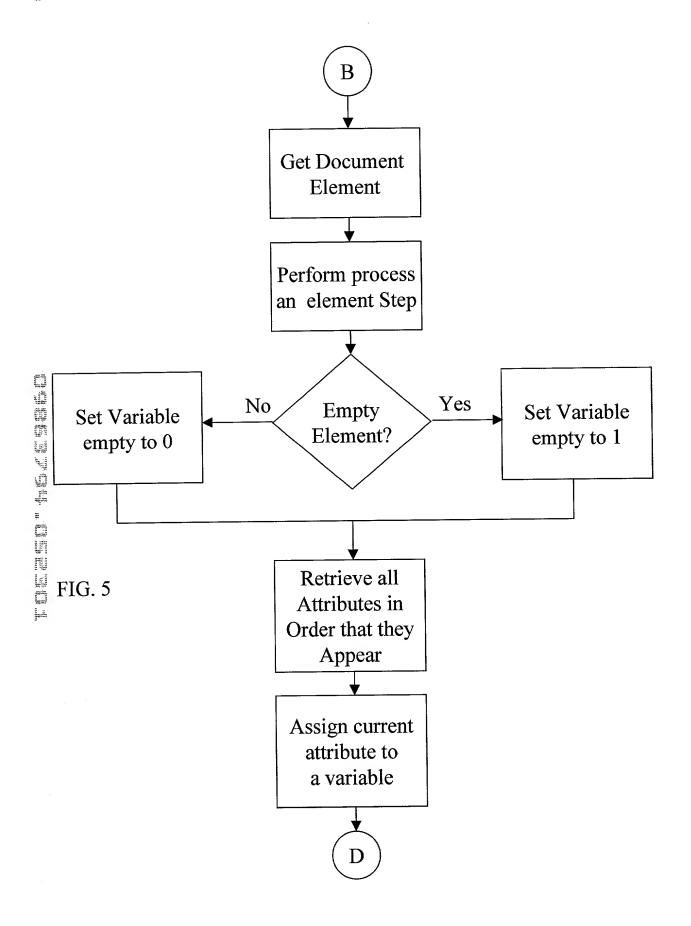


FIG. 5A

